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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,512	11/20/2003	Koichiro Inoue	INO3001/JEK	5617

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EXAMINER

YEE, DEBORAH

ART UNIT PAPER NUMBER

1742

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,512

Applicant(s)

KOICHIRO INOUE ET AL.

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-18-04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Specification and claims are poorly printed and difficult to read: it is requested that applicant provide a clearer copy.

Appropriate correction is required.

Claim Objections

Claim 7 is an improper multiple dependent claim since it depends on claim 6.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 to 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 10-219389 or Japanese patent 09-111412 cited by applicant in IDS dated March 18, 2004 in view ASM teaching by VanderVoort.

4. The English abstract of JP'389 and JP'412, each teach a non-heat treating hot forging steel having a composition with constituents whose wt% ranges overlap those recited by the claims; such overlap in wt% ranges establishes a prima facie case of obviousness because it would be obvious to one of ordinary skill in the art to select the claimed alloy ranges from the broader disclosure of the prior art since the prior art has the same utility (connecting rod produced by fracture splitting). See MPEP 2144.05.

5. Even though 0.001 to 0.01% oxygen as recited by claims 1 and 4 is not taught by prior art, such would not be a patentable difference. Note that Vander Voort in figure 1 discloses that controlling oxygen amounts from 0.001 to 0.0037% in low alloy steel enhances toughness which is measured by Charpy impact test. Since toughness is desired and sought by prior art, then it would be an obvious modification in view of the Vander Voort teaching to restrict oxygen content to 0.001 to 0.0037% to produce no more than the known and expected effect of such an addition.

6. Furthermore, prior art discloses specific examples which closely meet the claimed composition except contain slightly higher amounts of Al, and when calculated, satisfy or closely satisfy the claimed equations. See JP'412, alloys 1 and 13 on page 3 and JP'389, alloys 3 and I on page 4. Since applicant has not demonstrated criticality of the 0.001 to 0.01% Al range (e.g. by comparative test data), C_{eq} and T_{tr} ranges, then it would seem that a composition with amounts slightly outside the claimed ranges would depict a mere difference in the proportion element without any attendant unexpected results, which would not patentably distinguish claims over prior art. Moreover, the comparative data submitted by on page 19 of applicant's specification is invalid because it is not representative of the closest prior art examples.

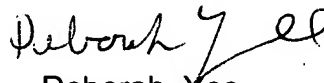
7. Also even though prior art does not teach the claimed equations, such would not be a patentable difference. Note that it has been held that there is no invention involved in the discovery of a general formula if it covers or closely covers a composition described in the prior art. For example see alloy 13 in page 6 of JP'412, and when calculated, has $C_{eq} = 0.7377$ and $T_{tr} = 0.072$ that are within the claimed limitations.
8. JP'412 English abstract discloses Nb and Ti in wt% ranges that overlap those recited by claims 2 and 5.
9. JP'412 and JP389 English abstracts, each disclose Pb and Bi in wt% ranges that overlap those recited by claims 3 and 6.
10. JP'412 and JP'380 English abstracts, each teach a hot forging steel that can be produced by separation with fracture splitting and hence would meet the preamble of claims 4 to 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deborah Yee
Primary Examiner
Art Unit 1742

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